

## NOTES ON SOME HYDROPSYCHIDÆ

BY NATHAN BANKS

Mr. Milne's third part of his Studies of Trichoptera having appeared and finishing the series, I offer certain remarks thereon, particularly on some Hydropsychidæ. Somewhat similar criticisms can be made of various other parts. Mr. Milne has on several occasions credited me with placing a name as a synonym when it was first done by others.

Thus under *Hydropsyche alternans* Walk. he puts *H. morosa* Bks. (nec. Hag.) as synonym. Now four years before I was born Hagen himself in his Phryganidarum Synopsis Synonymyca, p. 25, 1864, puts his *H. morosa* as equal to *alternans* Walk. McLachlan had indicated it the year before. Both I and Ulmer have simply accepted the dictum of Hagen and McLachlan.

In the type series of *H. morosa* now in the Museum there are five specimens of *alternans* and three of a *Cheumatopsyche* from Red River of the North. These three do not agree well with the description, but Milne has taken them to bear the name *morosa*. Therefore to keep the name *morosa* as Hagen, Ulmer, and I have kept it for seventy years, I have selected and marked as lectotype of *Hydropsyche morosa* Hagen a male from "St. Lorenz, Canada, Sacken 1859," which is what has been commonly called *alternans* Walk. The three *Cheumatopsyche* from Red River are near to some of Hagen's types of *H. phalerata*. But since Ulmer has figured<sup>1</sup> (Selys Monographs fasc. VI, p. 66, 1907) a species of *Hydropsyche* as Hagen's *H. phalerata* (and some of Hagen's types were of this form) I have selected and marked as lectotype *Hydropsyche phalerata* Hagen a specimen from "Washington, Sacken," which is the species figured by Ulmer. This is much smaller than

<sup>1</sup>His dorsal figure shows apical joint of claspers too long.

the others of the *scalaris* group, with larger, fewer pale spots, and eyes of male wider apart than the diameter of an eye.

Following Ulmer, Martynov, Mosely, Navás, and Betten I am separating *Cheumatopsyche* (that is the *Hydropsychodes* of these authors) on the character used by Betten, the position of certain cross-veins; this appears to be constant.

Mosely informs me that the type species of *Hydropsychodes* has no closed median cell, and that Ulmer's figure is wrong; in any event *Cheumatopsyche* is an older name.

Another case is where I am credited with putting *H. dubitans* as a synonym of *N. crepuscularis*, although I had simply followed the statement of McLachlan (Revision European Trichoptera, p. 393, 1878) who had seen the types of both names. As to Walker's *Polycentropus crassicornis*, put as a synonym of *N. crepuscularis*, I examined a type in 1912 and saw that it was a *Phylocentropus*. Mr. Mosely informs me there are four types in the series, two (a male and female) of a *Plectrocnemia*, one female of a *Phylocentropus*, and one male of a *Neureclipsis*.

Mosley thinks (and I agree) that the name should be kept for the *Plectrocnemia*, and I select as lectotype of *Polycentropus crassicornis* Walk. a male in the type series which is a *Plectrocnemia*; all types are from Georgia.

Milne lumps under *H. scalaris* about all the forms that have the same general structure of the penis, ignoring further differences. In the male type of *H. scalaris* the apical joint of the clasper has a distinct hook at the end; the eyes of the male, although larger than in the female, are wider apart than the width of an eye. Betten, in sinking my *H. hageni*, has called attention to Hagen's statement that the eyes of the male *scalaris* were larger than the female. This is but a half-truth, for Hagen also says after the description that he has a male with still larger eyes, and adds "Is it different?"

I have selected and marked as lectotype of *Hydropsyche scalaris* Hagen a male from "St. Lorenz, Canada, Sacken." *H. hageni* is smaller and darker than *H. scalaris*, the male

eyes are less than the width of an eye apart. It is common in southern localities where the typical *scalaris* is not found. The last joint of the clasper is shorter and broader than in *scalaris*.

*H. incommoda* Hagen from Georgia is also put as a synonym by Milne. The superior plate is more nearly

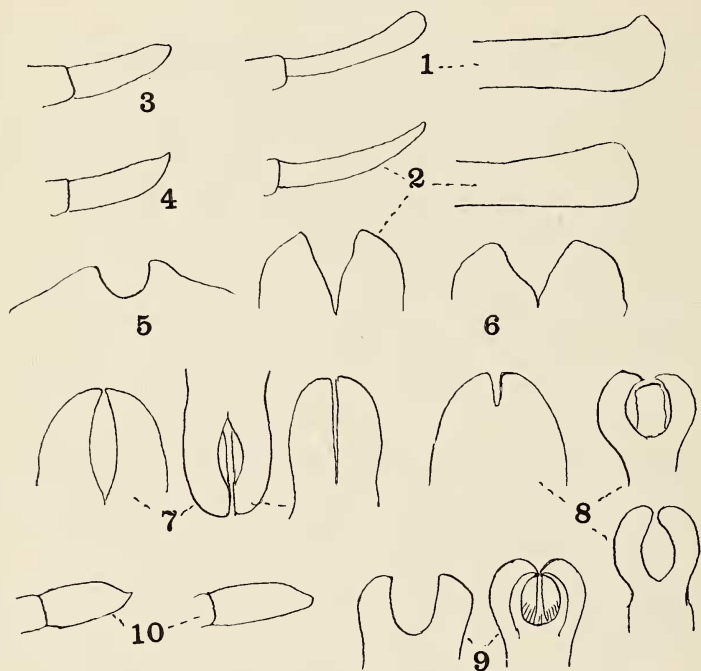


Fig. 1. Male genitalia of *Hydropsyche*. 1, *H. separata*, clasper and penis; 2, *H. reciproca*, clasper and penis, and superior plate; 3, *H. incommoda*, clasper; 4, *H. scalaris*, clasper; 5, *H. separata*, superior plate; 6, *H. depravata*, superior plate; 7, *H. scalaris*, superior plate, penis below and above; 8, *H. incommoda*, superior plate, penis, two specimens; 9, *H. phalerata*, superior plate, penis; 10, *H. hageni*, clasper, apical joint.

conical, with only a short incision, the apical joint of the clasper has the hook less distinct. The eyes of male are wide apart, further apart than in *H. scalaris*. It occurs also in Louisiana.

There are minor differences in these four forms, all of which, *scalaris hageni*, *incommoda*, *phalerata*, I consider distinct species, judging by the characters used in the separation of European species.

Mr. Milne has put at least two (perhaps three) forms under *Hydropsyche depravata* Hagen. *H. depravata* was described from a female from Georgia; a male from Georgia (same handwriting) appears to be the same species and Milne makes it the neallotype. This has the apical part of the clasper slender, curved, and scarcely narrowed toward tip; the superior plate has a deep, triangular emargination.

In New England, Eastern New York, and Pennsylvania there is a fairly common species of the same group as *H. depravata*. It is as large as *H. scalaris*, darker and with more numerous and smaller spots, and in the male the eyes widely separated. The female is readily separated from *H. scalaris* by having the mid basitarsus dark and scarcely swollen (in *scalaris* extremely broad and very pale).

The apical part of the clasper is hardly as long as in *H. depravata* and plainly tapering toward the tip; the superior plate is deeply, acutely indented, the lobe each side being narrowed near the tip and pointed. This is probably *H. reciproca* Walk., and I shall so consider it. The type of Walker's species is a female and has lost the middle legs. *H. depravata* is probably the same.

From the western part of New York and further west is a form similar in size and markings. The superior plate has only a rather shallow, rounded emargination, and the apical part of the clasper is plainly somewhat clavate toward tip. This is certainly a different form from the Eastern species and I have named it

#### ***Hydropsyche separata* sp. nov.**

The fore wings are much spotted with gray, few in extreme apical part; the penis, seen from side, is rounded at tip, slightly swollen and almost pointed above (in *recip-*

*roca* not at all pointed above); the superior plate has a median rounded emargination, which when not shriveled, is as wide as deep; the male eyes wide apart. Apical part of claspers slightly enlarged at tip. The female has the mid basitarsus dark and but little swollen. The fore wing is 11 mm. long.

Type (and paratypes) from Westfield, N. Y., June and July 1905 (Woglum coll.). Others are from Saskatchewan, Scudder.

*Polycentropus confusus* Hagen was described from three specimens, two from Trenton Falls N. Y., and a female from Washington, D. C. One, a female, from Trenton Falls, N. Y. has the discal cell in the hind wings closed and is a *Plectrocnemia*, and is so treated by Betten, necessitating a change in *Plectrocnemia confusa*, Mosely. This specimen when I first saw the collection and until lately was the first specimen in the row. But the other specimen from Trenton Falls, N. Y. is a male, a true *Polycentropus*. In 1914 (Can. Ent.) I figured the genitalia of this species as *Polycentropus confusus*; I have therefore selected this Trenton Falls male as lectotype of *Polycentropus confusus* Hagen and so marked it. Thus Mosely's *Plectrocnemia* will not need renaming.

The selection of these lectotypes will result in keeping several of the Hagen names as they have been treated and figured, which, I believe, is better than to make the changes which have recently been put forward, and in each case the specific names is retained in the genus in which Hagen described it.